

REMARKS/ARGUMENTS

Reconsideration of the rejections set forth in the Office Action dated September 17, 2004 is respectfully requested. Claims 1-34 have been rejected. Claims 35-38 have been added. As such, claims 1-38 are currently pending.

Claims 1, 12, 19, 24, 28, and 33 have been amended to recite that the failure of a first element that is identified by a list mechanism as not being included in an alternate circuit path does not affect the alternate circuit path. Support for these amendments may be found, for example, in the Specification on page 11 at lines 6-12. Claim 34 has been amended for consistency.

New claim 35 recites a device which includes a route generator that generates a protected circuit path that includes a primary circuit path and an alternate circuit path using a list mechanism which identifies a first element of the primary circuit path as being inaccessible to the alternate circuit path. The primary circuit path and the alternate circuit path are both implemented within the network. Support for this new claim may be found in the Specification, as for example from page 18 at line 15 to page 19 at line 13. New claim 36 recites that the first element is operational when the alternate circuit path is created. Support for this new claim may be found in the Specification, *e.g.*, on page 11 at lines 6-20.

New claim 37 requires that circuit paths are nodal diverse and share substantially no nodes. Support for this new claim may be found in the Specification, as for example from page 10 at line 28 to page 11 at line 4. New claim 38 requires that circuit paths are link diverse and share substantially no links. Support for this new claim may be found in the Specification, as for example from page 10 at line 28 to page 11 at line 4.

Objections to the Drawings

The Examiner has objected to Figs. 1a-1c, 2a, and 2b as not being designated by a legend such as --Prior Art--. To overcome the Examiner's objections, Figs. 1a-1c, 2a, and 2b have been amended to include a legend. Corrected drawings sheets and replacement sheets which include amendments made by the Applicants are submitted herewith.

Objections to the Specification

The Examiner has objected to the abstract of the disclosure. The abstract of the disclosure has been amended in a sincere effort to overcome the Examiner's objections. The Examiner has also objected to the disclosure for several informalities. The Applicants believe that they have addressed all of the Examiner's objections, and note that the informality identified by the Examiner as appearing at line 1 of page 16 appears to actually be at line 1 of page 18. Hence, the paragraph which includes line 1 of page 18 has been amended, whereas the paragraph which includes line 1 of page 16 has not been amended.

Claim Objections

The Examiner has objected to claim 34 for having informalities. The Applicants have amended claim 34 to depend from claim 33 in order to overcome the Examiner's objections.

Rejections under 35 U.S.C § 102 and 35 U.S.C § 102

Claims 1-3, 5, 7-14, 17, 19, 21-24, 28-30, and 33 have been rejected under 35 U.S.C § 102(e) as being anticipated by Azuma et al., U.S. Patent No. 6,430,150 (Azuma). Claims 4, 6, 16, 18, 20, 25-27, 32, and 34 have been rejected under 35 U.S.C § 102(e) as being unpatentable over Azuma as applied to claims 1, 5, 12, 17, 19, 23, 24, 28, and 33 and further in view of Fahim et al., U.S. Patent No. 5,459,716 (Fahim).

Azuma contemplates creating alternate paths only after a failure of a link or a node in a corresponding (primary) path. Specifically, once a node adjacent to the location of a failure broadcasts that a failure has occurred, alternate paths are then computed in order to restore a telecommunications path between two nodes (Azuma, from column 3 at line 62 to column 4 at line 27). Azuma teaches that an alternate path for a telecommunications path is computed only after a node or a link failure. Hence, when the alternate path is computed to avoid a failed node or link, the primary path has already failed.

Independent claim 1 requires that a device includes a route generator and a list mechanism. The route generator is arranged to generate an alternate circuit path between a first node and a second node using a list mechanism. The alternate circuit path is generated so as not to include the first element identified by the list mechanism, and is not affected by a failure of the first element. In other words, the alternate circuit path is generated regardless of the status of the first element.

Eliminating nodes and links which are included in a primary circuit path from being considered for use in a corresponding alternate circuit path prevents a failure of a node or a link, respectively, in the primary circuit path from affecting the alternate circuit path (Specification, page 11 at lines 6-11). It is respectfully submitted that since Azuma appears to teach that an alternate circuit path to a circuit path is computed only when a node or a link fails in the circuit path, the failure of a node or a link does affect the alternate circuit path. Azuma teaches that an alternate circuit path is not even routed unless there is a failure in a circuit path. Hence, the generation of an alternate circuit path as taught by Azuma is clearly affected by a failure in a (primary) circuit path, which is contrary to the requirement of claim 1. Accordingly, claim 1 and its dependents are each believed to be allowable over the cited art for at least this reason.

Claims 2-11 each depend either directly or indirectly from amended claim 1, and are therefore each believed to be allowable over the cited art for at least the reasons set forth with respect to claim 1. Each of these claims recites additional limitations which, when considered in light of claim 1, are believed to further distinguish the claimed invention over the cited art.

Independent claims 12, 19, 24, 28, and 33 recite similar limitations as recited in claim 1. As such, claims 12, 19, 24, 28, and 33, as well as their respective dependents, are each believed to be allowable over the cited art for at least the reasons set forth above with respect to claim 1.

Claims 2-11, 37, and 38 each depend either directly or indirectly from independent claim 1 and are, therefore, each believed to be allowable over the cited art for at least the reasons set forth above with respect to claim 1. Each of these claims recites additional limitations which, when considered in light of claim 1, are believed to further distinguish the claimed invention over the art of record.

Independent claims 12, 19, 24, 28, and 33 recite similar limitations to those recited in independent claim 1. Accordingly, each of these independent claims, as well as their respective dependent claims, are believed to be allowable for at least the reasons set forth with respect to claim 1.

Conclusion

For at least the foregoing reasons, the Applicants believe all the pending claims are in condition for allowance and should be passed to issue. If the Examiner feels that a telephone conference would in any way expedite the prosecution of the application, please do not hesitate to call the undersigned at (408) 446-8690.

Respectfully submitted,



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Amendments to the Drawings:

The attached sheets of drawings includes changes to Fig. 1a, 1b, 1c, 2a, and 2b. These sheets, which include Figs. 1a, 1b, 1c, 2a, and 2b, replaces the original sheets including Figs. 1a, 1b, 1c, 2a, and 2b.

Attachment: Replacement Sheets
Annotated Sheets Showing Changes

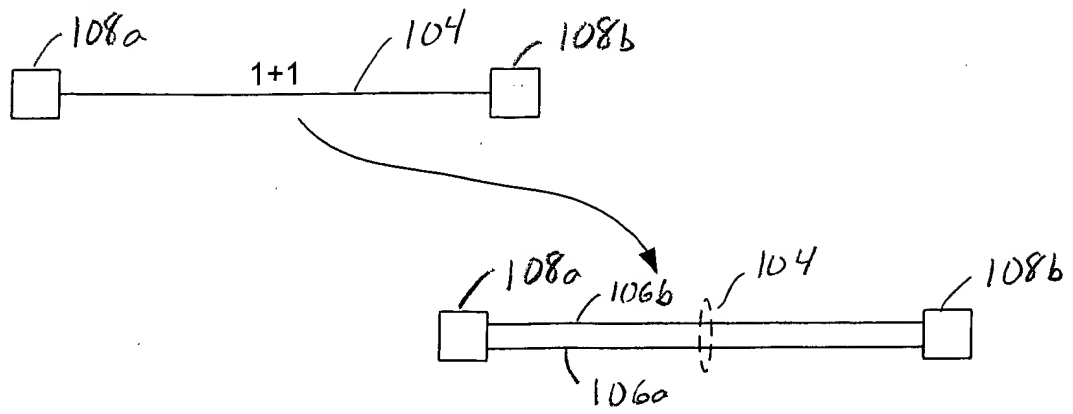


Fig. 1a
Prior Art

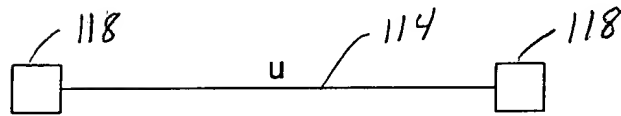


Fig. 1b
Prior Art

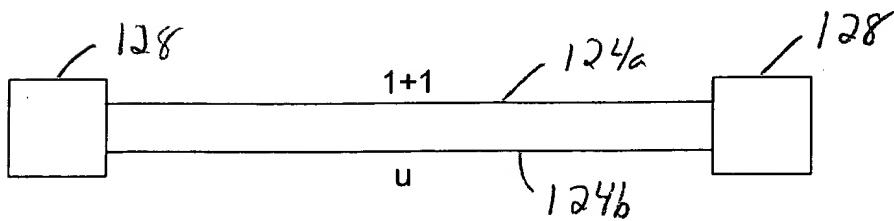


Fig. 1c
Prior Art

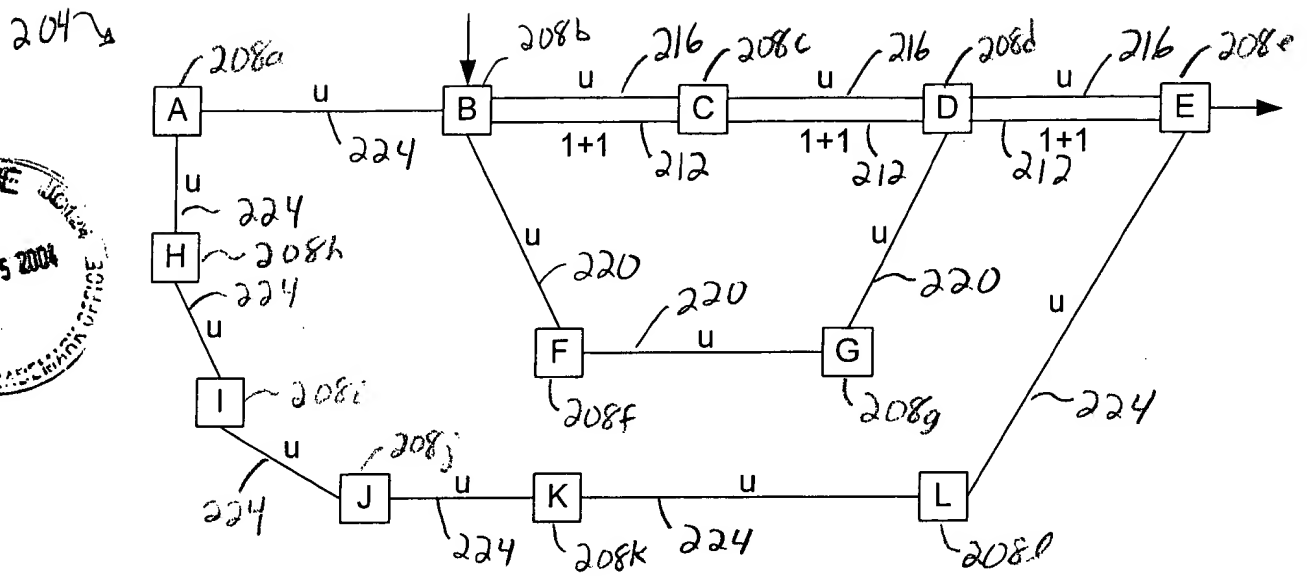


Fig. 2a
Prior Art

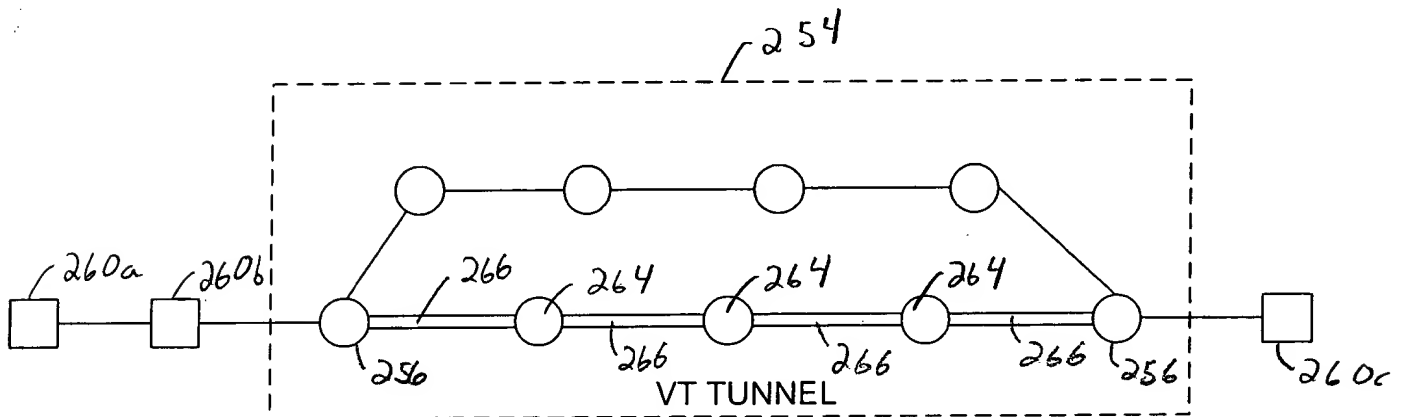


Fig. 2b
Prior Art